## Amendments to the Specification:

Please replace paragraph **[11]** with the following amended paragraph:

**[11]** In an alternative embodiment, the invention provides a method for manufacturing a coded mask structure. The method provides a mask substrate including a surface region, which has a plurality of spaced regions forming an array configuration. Each of the spaced regions is separated from each other by an opaque region. Each of the spaced regions is separated ~~by~~ from each other by a common dimension of no greater than 0.25 microns. The method includes selectively coding at least one of the spaced regions to define a mask for a read only memory (ROM) structure. The one coded spaced region is capable of causing an interference with a light source to transmit a lower intensity of light relative to any one of the spaced regions free from the coding.

Please replace paragraph **[20]** with the following amended paragraph:

**[20]** Conventional techniques have been developed to improve such distortion caused by close tolerances between openings in mask structures. Referring to Figure 3, conventional mask 300, which includes openings 309, 311, 313, 315, 317, and 319, are printed on multiple mask structures 301 and 303. That is, two mask structures would include each of the openings together, where no two openings have a spacing that is ~~would be~~ the smallest spacing 305 as mask structure 300. Here, openings 309, 313, 317, and 319 would be printed on mask structure 301. Openings 311 and 315 would be printed on mask structure 303. A process for printing all of the openings onto a photosensitive material would require a double exposure process using mask structure 301 and then mask structure 303. Such double exposure process includes a use of at least two masks, which are expensive and difficult to make, and also requires precise alignment between the two masks. The precise alignment may be difficult in some applications. These and other limitations of conventional techniques are described in further detail throughout the present specification and more particularly below.

Please replace the paragraph containing starting at page 5, line 26 with the following amended paragraph:

[21] Figures 4-8 are simplified diagrams illustrating a method of photolithography according to an embodiment of the present invention. As shown, the method begins with an improved mask substrate 400, which includes a surface region. The surface region includes a plurality of spaced regions forming an array configuration. The array configuration includes a plurality of rows, which are parallel to each other. The array also includes a plurality of columns, which are also parallel to each other. The rows intersect the column in right angles. Such rows and columns include an overlying opaque region. A spaced region is defined between each pair of rows and a pair of columns, which intersect the pair of rows. Each of the spaced regions is separated from each other by an opaque region. Preferably, each of the spaced regions is separated [[by]] from each other by a common dimension of no greater than 0.25 microns.

Please replace the paragraph starting at page 6, line 3, with the following amended paragraph:

[22] As shown, the array also includes selectively coding 403 of one or more of the spaced regions to define, for example, a masked read only memory (ROM) structure. In a specific embodiment, each of the coded spaced regions includes a structure, which causes an interference with a light source. Such structure allows light to pass through the spaced region, but such light is not at an intensity sufficient to develop a photosensitive material. The light passing through the coded spaced region traverses through the mask and does not substantially interfere with light from other spaced regions.

Please renumber Paragraphs 21-41 as Paragraphs 23-43:

[23] ~~[21]~~ In a specific embodiment, the method illuminates light through the openings in the mask. The openings include those with structures thereon. The openings with the structures reduce the intensity of the light to prevent development of the photosensitive material. Referring to Figure 5, the method selectively coded one or more spaced regions by transmitting a lower light intensity to certain regions of the photoresist material than the spaced regions. Such coded regions correspond to regions 503 that received light without the structures. The mask regions with the structures are free from development. The method develops the

photoresist material to selectively remove certain spaced regions while other regions remain intact, whereupon the photoresist material having a threshold that develops only the photosensitive material that received light from spaced regions free from structures.

[24] ~~[22]~~ Figures 6 through 8 are illustrative of a method of illuminating a photosensitive material according to an embodiment of the present invention. As noted, these diagrams are merely an example, which should not unduly limit the scope of the claims herein. One of ordinary skill in the art would recognize many limitations, variations, and alternatives. As shown, light 607 illuminates through one or more of the spaced regions 609 605 on a substrate 601 of mask 600, which will be used for the manufacture of integrated circuits. As also shown, the substrate also includes opaque regions 603, which form borders around each of the spaced regions. Light illuminating through spaced region 609 traverses through the substrate and forms intensity pattern 609 on Figure 7. Intensity pattern 609 is above a threshold level 701 that is required to allow a selected photosensitive material to develop. Other spaced regions 605, which include structures that reduce intensity of illumination 605, is below the threshold level and do not develop during processing. The developed spaced regions forms a later pattern 801 in the photosensitive material, as illustrated by Figure 8. Other regions that transmit light to the photosensitive material below the threshold level are not developed. It is believed that since a certain level of light still passes through the spaced regions with structures, interference influences between light from different spaced regions are reduced or possibly eliminated. Specific details on way of fabricating the present mask structure can be found throughout the present specification and in more detail below.

[25] ~~[23]~~ A method for fabricating a mask structure according to an embodiment of the present invention is outlined as follows:

[26] ~~[24]~~ 1. Provide a quartz substrate;

[27] ~~[25]~~ 2. Form an opaque film overlying the quartz substrate;

[28] ~~[26]~~ 3. Form a photoresist layer overlying the opaque film;

[29] ~~[27]~~ 4. Expose the photoresist layer to form a plurality of spaced patterns that form an array configuration;

[30] ~~[28]~~ 5. Develop the photoresist layer to form openings for a mask ROM pattern;

[31] ~~[29]~~ 6. Etch the opaque film through the openings in the developed photoresist to expose spaced regions in the quartz substrate;

[32] ~~[30]~~ 7. Strip the photoresist film;

[33] ~~[31]~~ 8. Form a photoresist layer overlying the patterned opaque film and exposed quartz substrate;

[34] ~~[32]~~ 9. Expose the photoresist layer for an interference structure in selected spaced regions in the quartz substrate;

[35] ~~[33]~~ 10. Develop the photoresist layer to form openings for the interference structure in the selected spaced regions;

[36] ~~[34]~~ 11. Etch the exposed quartz in the selected spaced patterns through the openings in the developed photoresist to code the selected spaced regions;

[37] ~~[35]~~ 12. Strip the photoresist film; and

[38] ~~[36]~~ 13. Perform other steps, as desired.

[39] ~~[37]~~ The above sequence of steps provides a method for fabricating a photolithography mask according to an embodiment of the present invention. As shown, such steps include patterning a ROM mask and selectively coding the ROM mask according to a specific embodiment. Further details of the present invention can be found throughout the present specification and more particularly according to the Figures described below.

[40] ~~[38]~~ Figures 9-12 are simplified cross-sectional view diagrams illustrating a method of fabricating a mask according to an embodiment of the present invention. These diagrams are merely an illustration, which should not unduly limit the scope of the claims herein. One of ordinary skill in the art would recognize many other variations, modifications, and alternatives. As shown, the method begins by providing a quartz substrate 900. The quartz substrate is the preferred starting material, although other materials that exhibit similar light transmission characteristics may also be used. The substrate includes an overlying film of chrome material 901. Other materials such as ZrSiO, MoSiO, and MoSiON can also be used. Preferably, deposition techniques such as sputtering, plating, or plasma deposition may be used

to deposit the chrome material. The method forms a photoresist layer 903 overlying the chrome film. The method exposes the photoresist layer and exposed regions are removed via development. Openings are formed in the photoresist layer for a mask pattern, such as a ROM mask pattern.

[41] ~~[39]~~ The method then etches the chrome film through the openings in the photoresist layer, as illustrated by Figure 10. Preferably, dry etching techniques can be used. As merely an example, such dry etching techniques include, among others, reactive ion etching, inductive coupled plasma etching, and reactive plasma etching. Plasma etching selectively removes 1001 the film without damaging the quartz substrate. The quartz substrates acts as an etch stop in the etching process of the film. The etched film is now patterned to form the mask pattern, which will be used in the manufacture of integrated circuits. The method then strips the photoresist film. Stripping often occurs using ashers employing an oxygen bearing plasma, which can be mixed with water. Of course, the particular stripping technique depends upon other factors.

[42] ~~[40]~~ The method forms a photoresist layer 1101 overlying the patterned chrome film and exposed quartz substrate. The method exposes the photoresist layer and exposed regions are removed via development. Here, the method exposes the photoresist layer for an interference structure in selected spaced regions in the quartz substrate. The photoresist layer is developed to form openings for the interference structure in the selected spaced regions. As shown, the photoresist layer covers all of the patterned chrome film and a portion of the quartz substrate to print the interference pattern on the selected spaced regions. The method etches the exposed quartz in the selected spaced patterns through the openings in the developed photoresist to code the selected spaced regions, as illustrated in Figure 12. Preferably, dry etching techniques can be used. As merely an example, such dry etching techniques include, among others, reactive ion etching, inductive coupled plasma etching, and reactive plasma etching. As merely an example, the etched quartz can shift the phase of the light traversing through the portion of the quartz with the structure. Such shift in phase results in a lower transmission intensity of light relative to other portions of the quartz that are free from the structure. Plasma etching selectively removes 1201 portions of the quartz to form structures.

The method then strips the photoresist film. Stripping often occurs using ashers employing an oxygen bearing plasma, which can be mixed with water. Of course, the particular stripping technique depends upon other factors.

[43] ~~[41]~~ Although the above has been illustrated according to a specific embodiment, there can be other modifications, alternatives, and variations. For example, boron has been used as an impurity, but other impurities such as phosphorus, and arsenic can also be used. It is also understood that the examples and embodiments described herein are for illustrative purposes only and that various modifications or changes in light thereof will be suggested to persons skilled in the art and are to be included within the spirit and purview of this application and scope of the appended claims.

Please delete paragraph **[42]**